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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/245,292	02/05/1999	JAY SALKINI	5195	4739

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EXAMINER

LEE, CHI HO A

ART UNIT

PAPER NUMBER

2663

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/245,292

Applicant(s)

SALKINI ET AL.5

Examiner

Andrew Lee

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-107 is/are pending in the application.
- 4a) Of the above claim(s) 86-104 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-85 and 105-107 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The declaration under 37 CFR 1.132 filed 6/5/02 is insufficient to overcome the rejection of claims 1-85 and 105-107 based upon 35 USC 102 (e) & 103 (a) as set forth in the last Office action because: it fails to set forth facts.

Furthermore, it include(s) statements which amount to an affirmation that the affiant has never seen the claimed subject matter before. This is not relevant to the issue of nonobviousness of the claimed subject matter and provides no objective evidence thereof. See MPEP § 716.

It states that the claimed subject matter solved a problem that was long standing in the art. However, there is no showing that others of ordinary skill in the art were working on the problem and if so, for how long. In addition, there is no evidence that if persons skilled in the art who were presumably working on the problem knew of the teachings of the above cited references, they would still be unable to solve the problem. See MPEP § 716.04.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application

being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)). Claims 1, 12, 14 –16, 18, 19, 22, 24, 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Houde et al U.S. Patent Number 5,920,822.

Re Claim 1, Houde et al teaches in fig 4, a MSC 84 comprising a TDMA interface (first interface), a CDMA interface (second interface) receiving and sending digital messaging and an Adjunct Processor 92 (a processing system), collectively is the a single platform. The Adjunct processor 92 communicates with the HLR & VLR to determine the current mobile station air interface to operate the TDMA/CDMA air interfaces of the MSC (see col. 6, lines 49-59). It is inherent that the Adjunct processor, TDMA, CDMA I/F incorporates connectors. The connectors are used for communicating control information within the single platform. The means in which the connectors are connected is the back plane.

Re Claim 12, the databases includes information regarding the air interface used by the mobile device. Clearly, if the MSC determines that the message is received from a CDMA base station, then it is inherent that sending mobile station is CDMA.

Re Claim 14 refer to Claim 1, fig 4 teaches the external HLR and VLR which communicate with the Adjunct processor 92 to determine the air interface protocol, wherein the HLR database includes information regarding the air interface protocol of the address mobile terminal and customer profile information.

Re Claims 15, 16, 22 refer to Claim 1, wherein the fig 3B teaches the generic bearer data which is interpreted by the Adjunct processor 92 to determine the air interface.

Re Claim 18, 19, fig 4 teaches the PSTN 76.

Re Claim 20, fig 4 teaches the wireless terminals 78(1-3) which encompass fixed wireless telephone, mobile telephone, and a computer with a modem.

Re Claim 24, it is inherent that MSC to perform the handoff function.

Re Claim 25, it is inherent that the MSC to set-up/reserve voice channels for the plurality of base stations.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2-5, 6, 30, 31, 34, 35, 46, and 48-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houde et al U.S. Patent Number 5,920,822 in view of Fletcher et al Reg. Number H1,921.

Re Claims 2-5, 31, 48-53, Houde et al teaches a MSC coupled to TDMA and CDMA interfaces. Houde et al fails to explicitly teach the specific protocol standards for message handling. However, Fletcher et al teaches a call processing architecture which allow calls that originate in accordance with one particular access technology, standard or protocol to be terminated using another access technology, standard or protocol (see

col. 30, lines 11-23). One of ordinary skilled would have been motivated by Fletcher et al to include call processor architecture functions of Fletcher into the call processor Loude et al to provide interoperability among plurality of known standards and protocols. This would include standards such as: IS-634, IS-41, GSM A, IS-651, J-STD, IS-652 and GSM 09.02, CDMA, AMPS. Therefore, it would have been obvious to one ordinary skilled incorporate the teaching of Fletcher et al into the teaching of Loude et al.

Re Claims 6, 30, 34, and 35, Houde et al fails explicitly teach the receiving and sending analog messaging according to AMPS protocols. However, Fig 3A of Houde et al teaches the portion 53 can be specific to other types of air interfaces (see col. 4, lines 18-37). One of ordinary skilled would have been motivated by Houde et al to include the AMPS into the MSC to provide interoperability to other air interface protocols.

Re Claim 46, refer to Claims 1 and 2, it is inherent that the specific air interface protocols to be associated with it's own processing threads.

5. Claim 8-11, 21, 23, 36, 37, 41-45, 69, 71, 72, and 76-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houde et al U.S. Patent Number 5,920,822 in view of Beeson, Jr. et al U.S. Patent Number 5,278,890.

Re Claims 8, 11, 36 and 37, Loude et al teaches the Adjunct processor which communicates the HLR and VLR to determine the air interface (see col. 6, lines 49-59). Loude et al fails to explicitly teach the HLR and VLR integrated into the MSC. Beeson, Jr. et al teaches a modular switching system, which performs the functions of the MSC plus those of a HLR and VLR. The functions are advantageously spread among modules of the switching system, thus avoiding the getting started cost dedicated data -

bases (see abstract). One of ordinary skilled would have been motivated by Beeson, Jr. et al to integrate the MSC with the HLR and VLR to reduce cost. Therefore, it would have been obvious to one ordinary skilled to incorporate the teaching of Beeson, Jr. et al into the teaching of Loude et al.

Re Claims 9, 42, 43 and 44, it is inherent that the HLR stores customer profile information.

Re Claims 21, 23, 41, 45, 69 and 71, it is inherent that the mobile equipment to be associated with the equipment identification registers. These registers are stored in HLR/VLR databases to process the call. Fig 2 of '890 teaches the authentication center integrated with MSC.

Re Claim 72, Examiner takes official notice that the MSC monitors the signal strength of the mobile communication device to initiate the handoff function.

Re Claims 76-80, Examiner takes official notice that the OAM 222 of fig 2 of '890 tracks the trunks connections between the MSC, base station, and PSTN for maintenance and recovery function.

Re Claims 81-85, Examiner takes official notice that the HLR database maintains a customer profile information including the prepaid customer information, rate plans, least cost information, desired rate plan, etc., for processing the call, wherein the call processor in the MSC use these information for connection and terminating of the call processing.

6. Claims 13 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houde et al U.S. Patent Number 5,920,822 in view of Phillips U.S. Patent Number 6,188,898.

Re Claims 13 and 59, Loude et al fails to explicitly teach the multi-protocol base station transmitting a control message to determine the operating protocol of the mobile device. However, Phillips teaches a multimode station which is capable of operating selectively with the operating protocol of the mobile terminal by transmitting a operating instructions to the BSC/MSC so as to operate the base station serving the mobile terminal in a mode consistent with the terminal's operating protocol (see abstract). One of ordinary skilled would have been motivated by Phillips to include the multi-protocol base station to facilitate interoperability between multiple operating air interfaces. Therefore, it would have been obvious to one ordinary skilled to incorporate teaching of Phillips into the teaching of Loude et al.

7. Claims 17, 27-29, 32, 33, 38, 54-58, 60-62, 66-68, 70, 74, and 75 63-65, 105, 106, and 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houde et al U.S. Patent Number 5,920,822 in view of Duncan et al U.S. Patent Number 5,953,331.

Re Claims 17, 27, 47, 63-65, 105, and 106, Loude et al fails to explicitly teach the MSC comprising a ATM interface. However, Duncan et al teaches a MSC comprising an ATM switch (see fig 3). One of ordinary skilled would have been motivated by Duncan et al to include that ATM interface into the MSC to facilitate high data speed with different QoS for reliable transmission of multimedia applications. Therefore, it

would have been obvious to one ordinary skilled incorporate teaching of Duncan et al into the teaching of Loude et al.

In particular regarding Claims 27, 47, 105-107, Houde et al in view Duncan et al fail to explicitly teach the single housing enclosing the first, second interface and the processor system. However, Houde et al teaches the processor system with both the interfaces. One skilled in the art would have been motivated to include these devices in a single housing for portability.

Re Claim 28, the MSC processor manages the switching of the incoming signals.

Re Claims 29, 32, 33, the digital interface includes TDMA and CDMA interfaces.

Re Claim 38, fig 4 teaches the MSC coupled to the PSTN over wired land-lines which explicitly indicates a wired interface module.

Re Claims 54-56, 60, refer to Claim 47, fig 4 teaches the external HLR and VLR which communicate with the Adjunct processor 92 to determine the air interface protocol, wherein the HLR database includes information regarding the air interface protocol of the address mobile terminal and customer profile information.

Re Claims 57, 61-62, refer to Claim 47, wherein the fig 3B teaches the generic bearer data which is interpreted by the Adjunct processor 92 to determine the air interface.

Re Claim 58, the databases includes information regarding the air interface used by the mobile device. Clearly, if the MSC determines that the message is received from a CDMA base station, then it is inherent that sending mobile station is CDMA.

Re Claims 66, 67, fig 4 teaches the PSTN 76.

Re Claims 68, fig 4 teaches the wireless terminals 78(1-3) which encompass fixed wireless telephone, mobile telephone, and a computer with a modem.

Re Claims 74, 75, Fig 4 teaches the trunk between the MSC-BS and another trunk between PSTN-MSC for carrying control messages.

8. Claims 26, 39, 40, and 73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houde et al U.S. Patent Number 5,920,822 in view of Fletcher et al Reg. Number H1,921.

Re Claims 26, 39, 40, and 73, Loude et al fails to explicitly teach the GUI to operate the MSC. Fletcher et al teaches that the configuration of the telecommunication system 100 preferably accomplished by a GUI associated with a local terminal (see col. 6, lines 5-10). One of ordinary skilled would have been motivated by Fletcher et al to include the GUI into operating terminal of MSC for ease of operation. Therefore, it would have been obvious to one ordinary skilled incorporate the teaching of Fletcher et al into the teaching of Loude et al.

Allowable Subject Matter

9. Claim 7 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Deters U.S. Patent Number 5227957 teaches a modular back plane;

Brody et al U.S. Patent Number 6278697 teaches a multi-protocol MSC.

Response to Arguments

11. Applicant's arguments filed 6/5/02 have been fully considered but they are not persuasive.

Regarding Claim 1, Applicant argues that Houde et al fails to teach the "single platform having a back plane" as supported by page 2, lines 3-6, page 68- page 69, lines 29 and in figures 85 and 86.

In response, the claimed "single platform having a back plane" lack specific structure, nor does the claim requires that the interfaces and the processor to be connected to the back plane of the platform.

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding Claims 27, 47, Applicant argues that the Houde fails to teach "a single housing for enclosing for first/second interface, and the processor system" and disagrees with the examiner's assertion that it would have obvious to one ordinary skill in the art to integrate these features of Claim 1. In particular, Applicant teaches that only the Adjunct process is housed by the MSC and the two interfaces are not in bodied in single housing.

In response, Houde et al suggests the first interface, second interface, and the processor system. Combining these features in a single housing would have been an obvious expedient to one ordinary skilled In re Larson, 144 USPQ 347 (CCPA 1965).

Regarding Claim 46, Applicant argues that it is not "inherent that the specific air interface protocols to be associated with it's own processing thread".

In response, by definitions, thread is a sequence of instructions that makes the program. Since the interfaces are different protocols, it is inherent that the sequence of instructions to operate the interfaces be different.

Regarding Claim 13, Applicant argues that Phillips does nothing to correct the deficiency of Houde et al.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, when multi-protocol base stations are connected to the multi-protocol MSC, the operating area of the multi-protocol base station services not only TDMA but also CDMA mobile phones for interoperability.

Regarding Claims 105 and 106, refer to argument of Claim 1.

Conclusion

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

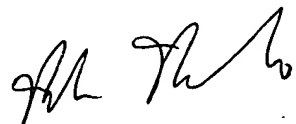
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Lee whose telephone number is 703-305-1500. The examiner can normally be reached on Monday to Friday from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 703-308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.



Andy Lee
August 7, 2002



MELVIN MARCELO
PRIMARY EXAMINER